

We claim:

1. A method for manufacturing a dimensionally stable and impermeable packaging container from a laminate comprising the steps of:

(a) providing at least one thermoformable base layer devoid of liquid or moisture soaking properties, said base layer comprising a material selected from the group consisting of polypropylene, foamed polypropylene, filled polypropylene, polyethylene terephthalate, filled polyethylene terephthalate, amorphous polyethylene terephthalate and filled amorphous polyethylene terephthalate;

(b) providing a barrier layer, said barrier layer comprising a material selected from the group consisting of aluminum, an aluminum oxide coating, a silica coating, ethylene/vinyl alcohol, polyvinyl alcohol, metalized oriented polyethylene terephthalate and metalized oriented polypropylene;

(c) providing a laminate layer adjacent to said barrier layer and directed towards an inside of said container, said laminate layer comprising a material selected from the group consisting of polypropylene, high density polyethylene, linear low density polyethylene, polyethylene terephthalate, amorphous polyethylene terephthalate, an adhesive plastic, a heat sealable plastic, a primer and a lacquer;

(d) partially adhering said base layer, barrier layer, and laminate layer to form a laminate;

(e) folding said laminate to form a container having a predetermined shape;

(f) heat treating said container with the use of an autoclave for applying moist heat at a pressure greater than atmospheric pressure so as to increase the adhesion of at least one of said base layer, barrier layer, and laminate layers together and impart mechanical rigidity to said container.

2. A method as recited in claim 1 further including the step of cooling said container in a liquid bath.

3. A method as recited in claim 1 wherein said base layer, barrier layer, and laminate layer are partially adhered such that they are held together a sufficient amount to form the laminate but are capable of sliding with respect to one another.

4. A method as recited in claim 1 wherein said step of heat treating said container occurs without the application of mechanical pressure thereto.

5. A method as recited in claim 1 wherein said step of heat treating said container fully adheres said layers together to

impart mechanical rigidity to the container.

6. A laminate for manufacturing a dimensionally stable and impermeable packaging container comprising:

(a) at least one thermoformable base layer devoid of liquid or moisture soaking properties, said base layer comprising a material selected from the group consisting of polypropylene, foamed polypropylene, filled polypropylene, polyethylene terephthalate, filled polyethylene terephthalate, amorphous polyethylene terephthalate and filled amorphous polyethylene terephthalate;

(b) a barrier layer partially adhered to said at least one thermoformable base layer, said barrier layer comprising a material selected from the group consisting of aluminum, an aluminum oxide coating, a silica coating, ethylene/vinyl alcohol, polyvinyl alcohol, metalized oriented polyethylene terephthalate and metalized oriented polypropylene; and

(c) a laminate layer positioned adjacent to and partially adhered to said barrier layer, said laminate layer being directed towards an inside of said container, said laminate layer comprising a material selected from the group consisting of polypropylene, high density polyethylene, linear low density polyethylene, polyethylene terephthalate, amorphous polyethylene terephthalate, an adhesive plastic, a heat sealable plastic, a primer and a lacquer and whereby said laminate is heat treated in an autoclave

which applies moist heat at a pressure greater than atmospheric pressure so as to increase the adhesion of at least one of said base layer, barrier layer, and laminate layers together to form said laminate.

7. A laminate as recited in claim 6 wherein said barrier layer is partially adhered to said at least one thermoformable base layer, such that they are capable of sliding with respect to one another.

8. A laminate as recited in claim 6 wherein heat treatment of said container occurs without the application of mechanical pressure thereto.

9. A laminate as recited in claim 6 wherein heat treatment of said laminate fully adheres said layers together.